Acc. Nr: AP0049171 Abstracting Service: CHEMICAL ABST. 5/70 Ref. Code: 480080

104465h Physicochemical properties of isomeric alkyldioxanes. IV. Lesteva, T. M.; Ogorodnikov, S. K.; Nebylova, E. M.; Morozova, A. I. (USSR). *Zh. Prikl. Khim. (Leningrad)* 1970, 43(1), 150–4 (Russ). Phase equil. data were tabulated for systems of 4,4-dimethyl-1,3-dioxane, the 4-Et analog, and the 4,5-di-Me analog. The equil. of liq.-vapor in these followed Raoult's Law. Mixts. of these formed ideal systems. With H_2O, azeotropes were formed with the following b.p. and wt. % content of the nonaq. component shown: 4,4-Me_2, 92.85°, 64.8; 4-Et, 92.6°, 70.9; and 4,5-Me_2, 91.9°, 62.2%.

G. M. Kosolapoff

REEL/FRAME
19800978

USSR UDC 621.385.832.032.36.002.237(088.8)-(47):621.397,62:621.397.132

ALEKSEYEV, I. A., ZHUKOVSKAYA, E. I., GLINKA, A. P., KOROZOVA, A. V., and RUMYANTSEVA, T. Ya.

"Luminous Coating for Screens of Cathode-Ray Tubes"

USSR Author's Certificate No 275240, filed 7 Mar 69, published 18 Nov 70 (from RZh-Elektronika i yeye primeneniye, No 7, July 1971, Abstract No 7A284P)

Translation: The proposed luminophor covering consists of 2-component ($Y_3Al_5O_{12}Ce$--60--70 percent, $Sr_3(PO_4)_2$. Eu--30--40 percent) or 3-component ($Y_3Al_5O_{12}$ .Ce--60 to 70 percent, $Sr_3(PO_4)_2$. Eu--20 to 15 percent, V_2BiO_5Ce---20 to 15 percent) mixture of luminophors. The high efficiency and short time of afterglow, amounting to 0.15--0.20 microsecond at a level of five percent from the brightness at the moment of cessation of excitation, makes it possible to increase the signal-to-noise ratio in all the color channels of a television picture tube and to improve the quality of the image. The method of precipitation in water of a solution of a silicate of K and $Sr(NO_3)_2$ is used for deposition of the luminophor covering.

1/1

UDC: 621.385.832.032.36

USSR

ALEKSEYEV, I. A., ZHUKOVSKAYA, E. I., GLINKA, A. P., MOROZOVA, A. V., RUMYANTSEVA, T. Ya.

"A Luminescent Coating for the Screens of Cathode Ray Tubes"

Moscow, Otkrytiya, Izobreteniya, Promyshlennyye Obraztsy, Tovarnyye Znaki, No 22, 1970, Soviet Patent No 275240, Class 21, filed 7 Mar 69, p 58

Abstract: This Author's Certificate introduces: 1. A luminescent coating for the screens of cathode ray tubes based on cerium-activated yttrium aluminate $Y_3Al_5O_{12}$·Ce. As a distinguishing feature of the patent, the effectiveness of screen emission in the blue region of the spectrum is improved and the time of afterglow is reduced by introducing the phosphor $Sr_3(PO_4)_2$·Eu into the composition of the coating. 2. A modification of this coating distinguished by the fact that color saturation is increased by additional introduction of the phosphor Y_2SiO_5·Ce. 3. A modification of coating No 1 distinguished by the fact that its ingredients are taken in the following proportions (in percent by weight): $Y_3Al_5O_{12}$·Ce--60-70; $Sr_3(PO_4)_2$·Eu--30-40. 4. A modification of coating No 2 distinguished by the fact that the ingredients are taken in the following proportions (in percent by weight): $Y_3Al_5O_{12}$·Ce--60-70; $Sr_3(PO_4)_2$·Eu --20-15; Y_2SiO_5·Ce--20-15.

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1/2 019 UNCLASSIFIED PROCESSING DATE--04DEC70

TITLE--NEW POLISHING RESIN COMPOSITIONS -U-

AUTHOR--MOROZOVA, E.N.

COUNTRY OF INFO--USSR

SOURCE--OPT. MEKH. ORM. 1970, 37(2), 78

DATE PUBLISHED-------70

SUBJECT AREAS--MATERIALS

TOPIC TAGS--POLYSTYRENE RESIN, OPTIC GLASS, GLASS PROCESSING, ROSIN, ABRASION RESISTANCE

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED
PROXY REEL/FRAME--3006/0873 STEP NO--UR/0237/70/037/002/0078/0078

CIRC ACCESSION NO--AP0134602

UNCLASSIFIED

2/2 019 UNCLASSIFIED PROCESSING DATE--04DEC70

CIRC ACCESSION NO--AP0134602

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. BLENDING PETROLEUM BITUMEN 63-9, BLOCK POLYSTYRENE 28-35, AND BEES WAX 2-3 PARTS AT 230-50DEGREES FOR 3-4 HR GAVE A POLISHING RESIN. THE FLOW TEMP. OF THE NEW RESIN WAS 140DEGREES, I.E. 68DEGREES HIGHER THAN THAT OF SINTERED ROSIN USED FOR OPTICAL GLASS POLISHING. THE NEW RESIN MAINTAINED A CONST. VISCOSITY DURING POLISHING AND HAD EXCELLENT ABRASION RESISTANCE.

UNCLASSIFIED

USSR

UDC 77

BORIN, A. V., SLESAREVA, V. I., MOROZOVA, G. G., OLEYNIKOVA, V. I.

"The Effect of Sodium Thiosulfate on Photographic Properties and Storage Life of Optically Sensitized Emulsion Layers"

Uspekhi nauchn. fotogr. (Advances in Scientific Photography), 1970, Vol. 14, pp 116-123 (from RZh-Fizika, No 12(I), Dec 70, Abstract No 12D1337)

Translation: The effect of different amounts of sodium thiosulfate (I) introduced into optically sensitized emulsions on the change in their properties and additional light sensitivity at the time of introduction when the emulsions stand in a melted state or when dry layers are kept for an extended period is investigated. The introduction of I before the dyes only slightly effects the sensitivity properties but considerably lowers the additional sensitivity under subsequent optical sensitization (it drops more for more sodium thiosulfate). The effect of I as the melted emulsion stands is the same and depends on its quantity and on the dye: a retardation of the drop in the additional sensitivity and its

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USSR

Fotogr., 1970, Vyp. 14, pp 116-123

acceleration or transition from acceleration to retardation are encountered. Similar phenomena were observed under extended storage of dry layers: as in the melted state sodium thiosulfate may also cause a rise in fogging; it is especially considerable in those cases when the emulsion layers contain polyethylene glycol. The different effects of I under different conditions are primarily associated with its two functions: etching of the AgHal surface, by which the bond of the sensitivity centers with the surface is weakened, and the effect of dyes on the rate of discoloration, the products of which can desensitize or fog the emulsion. Displacement of the dye from the AgHal is also possible due to I, and in the presence of polyethylene glycol there is also slow oxidation of I and an intensification of electron-acceptor properties of sensitivity centers. 16 references. Authors abstract.

USSR

UDC 669.721.5'5'296:620.193.4

TIKHONOVA, M. A., AL'TMAN, M. B., TIKHONOVA, V. V., GERASIMOVA, M. N., TOKMAKOVA, G. S., LASHKO, N. F., MOROZOVA G. I.

"Effect of the Composition and Structure of Alloys of the Mg-Zn-Zr System on their Corrosion and Electrochemical Behavior"

V sb Struktura i svoystva legk. splavov (Structure and Properties of Light Alloys -- collection of works), Moscow, Nauka Press, 1971, pp 136-140 (from Rzh-Metallurgiya, No 4, Apr 72, Abstract 4I700)

Translation: A study was made of the effect of Zn on the structure and corrosion behavior of alloys of the Mg-Zn system and the Mg-Zn-Zr system with a Zn content of up to 20%; the effect of heat treatment leading to a change in the phase composition and in the quantity and shape of the segregations of intermetallide compounds on the corrosion strength of the alloys of the Mg-Zn-Zr system was also studied. The variation of corrosion resistance of the alloys is explained by the formation of cathode phases with different electrochemical properties and variation of their number and form of segregation. The increase in corrosion resistance with the introduction of Zr into the alloys of the Mg-Zn system is primarily connected with a decrease in the Fe admixture in the alloys. Six illustrations, one table, and a 6-entry bibliography.

1/1

Analysis and Testing

USSR UDC 669.1.541.015

LASHKO, N. P., SASLAVSKAYA, L. V., KOZLOVA, M. N., MOROZOVA, G. I., SOROKINA, K. P., KHAKHLOVA, N. V., and YAKOVLEVA, YE. F.

"Physical and Chemical Methods of Phase Analysis of Steels and Alloys"

Fiziko-Khimicheskiye Metody Fazovogo Analiza Staley i Splavov (English version above), Moscow, Metallurgiya Press, 1970, 476 pages

Translation of Annotation: Methods of combined physical and chemical phase analysis are systematized and summarized, including methods of phase separation and their chemical and x-ray structural analysis.

Problems of the theory of electrochemical separation of phases, the principles of selection of electrolytes and methods of phase analysis are analyzed as applicable to various steels and alloys.

The book is designed for scientific workers of scientific research institutes and plant laboratories involved in the development of steels and alloys, as well as the study of their properties depending on their phase composition.
99 figs, 100 tables, 708 biblio refs.

1/6

USSR

LASJKO, N. F., et al., Fiziko-Khimicheskiye Metody Fazovogo Analiza Staley i Splavov, Metallurgiya Press, 1970, 476 pages.

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LASHKO, N. F., et al., Fiziko-Khimicheskiye Metody Fazovogo Analiza Staley i Splavov, Metallurgiya Press, 1970, 476 pages.

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LASHKO, N. F., et al., Fiziko-Khimicheskiye Metody Fazovogo Analiza Staley i Splavov, Metallurgiya Press, 1970, 476 pages.

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LASHKO, N. F., et al., Fiziko-Khimicheskiye Metody Fazovogo Analiza Staley i Splavov, Metallurgiya Press, 1970, 476 pages

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LASHKO, N. F., et al., Fiziko-Khimicheskiye Metody Fazovogo Analiza Staley i Splavov, Metallurgiya Press, 1970, 476 pages

6/6

1/2 013 UNCLASSIFIED PROCESSING DATE--11SEP70

TITLE--CALCULATION OF ELECTROMAGNETIC FIELDS APPLIED BY THE SOUNDING ON THE METHOD OF GROWING IN THE NEAREST ZONE -U-

AUTHOR--KAUFMAN, A.A., KURILLO, V.N., MOROZOVA, G.M.

COUNTRY OF INFO--USSR

SOURCE--GEOLOGIYA I GEOFIZIKA, 1970, NR 1 (121) PP 92-101

DATE PUBLISHED-------70

SUBJECT AREAS--EARTH SCIENCES AND OCEANOGRAPHY

TOPIC TAGS--ELECTROMAGNETIC FIELD, MAGNETIC DIPOLE, PROSPECTING

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED
PROXY REEL/FRAME--1986/1289 STEP NO--UR/0210/70/000/001/0092/0101

CIRC ACCESSION NO--AP0103171

UNCLASSIFIED

2/2 013 UNCLASSIFIED PROCESSING DATE--11SEP70

CIRC ACCESSION NO--AP0103171

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. THE METHOD OF COMPUTATION OF NONSTATIONARY ELECTROMAGNETIC FIELDS IN THE HORIZONTALLY LAYERED MEDIA IS DESCRIBED. THE FURYE TRANSFORMATION AND THE KNOWN PRINCIPLES FOR QUAZISTATIONARY, SINUSOIDAL FIELD DEPENDED ON TIME ARE USED IN THIS METHOD. THE MAIN FEATURES OF THE COMPUTATION METHOD ARE SHOWN EXAMPLIFIED BY ELECTROMAGNETIC FIELD COMPONENTS OF VERTICAL MAGNETIC DIPOLE COMPUTATION WITHIN THE CONDUCTING MEDIUM WITH THREE HORIZONTAL DIVISION SURFACE.

UNCLASSIFIED

USSR UDC: 621.375.026

PRUSLIN, V. Z. and MOROZOVA, G. N.

"Optimization of Signal Input Levels in TWT Amplification"

Moscow, Radiotekhnika, No 9, 1972, pp 86-88

Abstract: It is sometimes necessary, in a traveling wave tube amplifying the signal of several communications lines, that the signal/noise ratio for all the lines be the same. To achieve this, a special law for the frequency distribution of signal inputs is chosen. The purpose of this paper is to find such an optimum law. The authors begin their search with the solution for the nonlinear differential equations of a TWT operating in a mode of low nonlinearity with several unmodulated signals applied to its input. The law is obtained and the coefficients in it found through the use of an electronic digital computer. The results are given of an experiment performed to calculate the signal/noise ratio for all signals with these coefficients specified, and to choose the optimum values of these coefficients -- i.e., the values at which the difference between the maximum and minimum signal/noise values is a minimum.

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USSR UDC 541.13:541.515:543.422.27

IL'YASOV, A. V., KARGIN, YU. M., MOROZOVA, I. D., CHERNOKAL'SKIY, B. D., VAFINA, A. A., MEL'NIKOV, B. V., GEL'FOND, A. S., MUKHTAROV, A. SH., and GALYAMETDINOV, YU. G., Institute of Organic and Physical Chemistry Imeni A. Ye. Arbuzov, Acad. Sc. USSR, and Kazan' Chemical-Technological Institute Imeni S. M. Kirov

"Electrochemically Generated Free Radicals. 9 Communication. Reduction of Some Nitrophenylarsine Derivatives and EPR Spectra of Their Anion Radicals"

Moscow, Izvestiya Akademii Nauk SSSR, Seriya Khimicheskaya, No 10, Oct 72, pp 2174-2178

Abstract: The mechanism of polarographic reduction of nitrophenyldiethylarsines and their oxides and sulfides in an aprotic medium was studied. These compounds exhibit two reduction waves, the first one corresponding to a one-electron wave, the process being reversible. The second wave is typical of a 3e-process. A diagram for the sequential chemical processes of these compounds after the capture of second electron has been proposed. Both waves represent a stepwise oxidation of the unstable dianion of the substituted nitrobenzene; the phenyl ring -- arsenic system remains untouched in this process. Novel organoarsine anion radicals have been obtained by electrochemical reduction and studied by the EPR method. Delocalization of the unpaired electron in these anion

USSR

IL'YASOV, A. V., et al., Izvestiya Akademii Nauk SSSR, Seriya Khimicheskaya, No 10, Oct 72, pp 2174-2178

radicals has been investigated analyzing possible reasons for a considerable decrease of the spin density on the arsenic atom during the transition from tetracoordinated arsenic atom of the anion radicals to a tri-coordinated one.

2/2

USSR UDC 538.113:541.515:547.63'118

IL'YASOV, A. V., LEVIN, Ya. A., MOROZOVA, I. D., VAFINA, A. A., GOZMAN, I. P., and ZOROATSKAYA, Ye. I., Institute of Organic Chemistry, imeni A. Ye. Arbuzov, USSR Academy of Sciences, Kazan'

"Delocalization of the Unpaired Electron in Phosphorus-Containing Anion-Radicals"

Moscow, Doklady Akademii Nauk SSSR, Vol 201, No 1, Nov-Dec 1971, pp 108-111

Abstract: It is of current interest whether elements of the third period function as barriers in conjugated systems, or are able to participate in conjugation.

The distribution of spin density in the anion-radical of triphenylphosphine and its oxide were studied. The compounds were prepared by electrochemical reduction. For a more rigorous picture of delocalization of the unpaired electron, completely and partially deuterated Ph_3P and Ph_3PO were synthesized and studied. Dimethylformamide and acetonitrile solutions of the anion-radicals were studied at concentration of ca. $5 \cdot 10^{-3}$ M, using epr spectroscopy.
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USSR

IL'YASOV, A. V., et al., Doklady Akademii Nauk SSSR, Vol 201, No 1, Nov-Dec 1971, pp 108-111

Based on preliminary results, it is concluded that, unlike compounds of elements of the second period, the electron structure of phosphorus anion-radicals cannot be described by a simple π-electron theory; the so-called d-model must be rejected. The concepts of completely delocalized molecular orbitals and multi-center bonds must be used, with allowance for all valence electrons.

PUBLICATIONS

USSR

MOSKALENKO, Yu. Ye., VAYNSHTEYN, G. B., and KAS'YAN, I. I.

Vnutricherepnoye Krovoobrashcheniye v Usloviyakh Peregruzok i Nevesomosti: (Intracranial Blood Circulation Under Conditions of Accelerations and Weightlessness), Moscow, "Meditsina," 1971, 280 pp

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MOSKALENKO, Yu. Ye., et al., Vnutricherepnoye Krovoobrashcheniye v Usloviyakh Peregruzok i Nevesomosti: (Intracranial Blood Circulation Under Conditions of Accelerations and Weightlessness), Moscow, "Meditsina," 1971, 280 pp

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MOSKALENKO, Yu. Ye., et al., Vnutricherepnoye Krovoobrashcheniye v Usloviyakh Peregruzok i Nevesomosti: (Intracranial Blood Circulation Under Conditions of Accelerations and Weightlessness), Moscow, "Meditsina," 1971, 280 pp

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MOSKALENKO, Yu. Ye., et al., Vnutricherepnoye Krovoobrashcheniye v Usloviyakh Peregruzok i Nevesomosti: (Intracranial Blood Circulation Under Conditions of Accelerations and Weightlessness), Moscow, "Meditsina," 1971, 280 pp

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USSR

MOSKALENKO, Yu. Ye., et al., Vnutricherepnoye Krovoobrashcheniye v Usloviyakh Peregruzok i Nevesomosti: (Intracranial Blood Circulation Under Conditions of Accelerations and Weightlessness), Moscow, "Meditsina," 1971, 280 pp

USSR

MOSKALENKO, Yu. Ye., et al., Vnutricherepnoye Krovoobrashcheniye v Usloviyakh Peregruzok i Nevesomosti: (Intracranial Blood Circulation Under Conditions of Accelerations and Weightlessness), Moscow, "Meditsina," 1971, 280 pp

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USSR

MOSKALNEKO, Yu. Ye., et al., Vnutricherepnoye Krovoobrashcheniye v Usloviyakh Peregruzok i Nevesomosti: (Intracranial Blood Circulation Under Conditions of Accelerations and Weightlessness), Moscow, "Meditsina," 1971, 280 pp

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USSR UDC 541.13+541.515+542.941+661.718.1

IL'YASOV, A. V., KARGIN, Yu. M., LEVIN, Ya. A., MOROZOVA, T. D., MEL'NIKOV, B. V., VARINA, A. A., SOTNIKOVA, N. N., and GALEYEV, V. S., Institute of Organic and Physical Chemistry imeni A. Ye. Arbuzov, USSR Acad. of Sciences

"Electrochemically Generated Free Radicals. 6. The Reduction Mechanism of Certain Organophosphorus Compounds, and the Electron Paramagnetic Resonance Spectra of the Anion Radicals Formed"

Moscow, Izvestiya Akademii Nauk SSR, Seriya Khimicheskaya, No 4, 71, pp 770-776

Abstract: A series of organophosphorus compounds was studied in connection with their electrochemical reduction, using several methods. The electron paramagnetic method was applied in the case of electrochemically generated anion radicals of triphenylphosphine, its oxides, and the diethyl ester of β-styrylphosphosphonic acid.

Graphical data accompanying the paper include classical and commutated polarograms for the various compounds, and electron paramagnetic spectra for free radicals; numerical electrochemical data are given for nine organophosphorus compounds tested.

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Acc. Nr. AP0050454 Abstracting Service: CHEMICAL ABST. 5170 Ref. Code: 4R 0051

95003b Determination of the true values of the parameters of Raman effect lines. III. Morozova, I. D.; Kovalev, I. F. (USSR). *Opt. Spektrosk.* 1970, 28(1), 69–71 (Russ). Possibility of calcn. of the true line contours of the Raman scattering by means of the obsd. contours of the investigated and exciting lines was investigated when the latter were in different intervals of the "line shape scale." Generalized functions of the type of convolutions of nonneighboring scale intervals were used as approximating functions. As an example, the convolution of the slit and dispersion functions was discussed and the formulas for the calcn. of true values of the integral intensities, intensities in the max., and half-widths were derived. J. Moravec

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21

REEL/FRAME
19810433

USSR UDC 620.191.193

MOROZOVA, I. K., Engineer; GERASIMOV, V. V., Doctor of Technical Sciences; GROMOVA, A. I., Candidate of Technical Sciences; and ZHENIKHOVA, A. V., Engineer

"Dispersed Composition of Corrosion Products"

Moscow, Teploenergetika, No 10, Oct 70, pp 72-74

Abstract: The purpose of this work was to study the composition of corrosion products found in water as a function of temperature, pH of the medium, and the oxygen content in it. All tests were conducted under static conditions in an autoclave which had an internal surface made of Kh18l0T steel or steel 20. Test time was 100 hours. Test solutions were neutralized deaerated water, NH_4OH (pH = 10), and HNO_3 (pH = 3). After testing, the solution and deposits were removed with a pipet and the autoclave was washed three times with distilled water.

Results of these tests showed that of the particles measuring less than 0.1 micron only 1-2% retain their sizes in the case when the iron is in the ionic form and only 3-6% when

USSR

MOROZOVA, I. K., et al., Teploenergetika, No 10, Oct 70, pp 72-74

the iron is in the colloidal form. The remaining iron is distributed as follows: from 40 to 80% remains in solution in the form of coarse particles (greater than 10 microns) and 15-33% can be observed in the form of deposits on samples of alloys of titanium, zirconium, and nickel. The remaining iron was deposited on the autoclave walls. The test showed that particles less than 0.1 micron is size, obtained at room temperature, increase in size to larger than 10 microns when placed in a medium with a temperature of 300 C.

2/2

Acc. Nr: AP0042127 Abstracting Service: NUCLEAR SCI. ABST. 4-70 Ref. Code: IR0089

12371 CORROSION AND ELECTROCHEMICAL BEHAVIOR OF CARBON STEELS UNDER CONDITIONS SIMILAR TO THOSE IN REACTOR OPERATION. Gerasimov, V. V.; Gromova, A. I.; Lupakov, I. S.; Morozova, I. K.; Bakulevskii, A. A.; Belous, V. N.; Kolesov, B. I. At. Energ. (USSR); 28: 13-18(Jan 1970). (In Russian).

The corrosion and electrochemical behavior of carbon steels was studied in water at 300°C with oxygen concentrations equal to 0.02 to 40 and 1000 ppM. The samples of carbon steels, irradiated in the reactor and non-irradiated samples were tested under static and dynamic conditions. The increase of oxygen concentration in water intensified corrosion of carbon steels. Irradiation reduced steel corrosion resistance during the initial test period. (auth)

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REEL/FRAME
19760028

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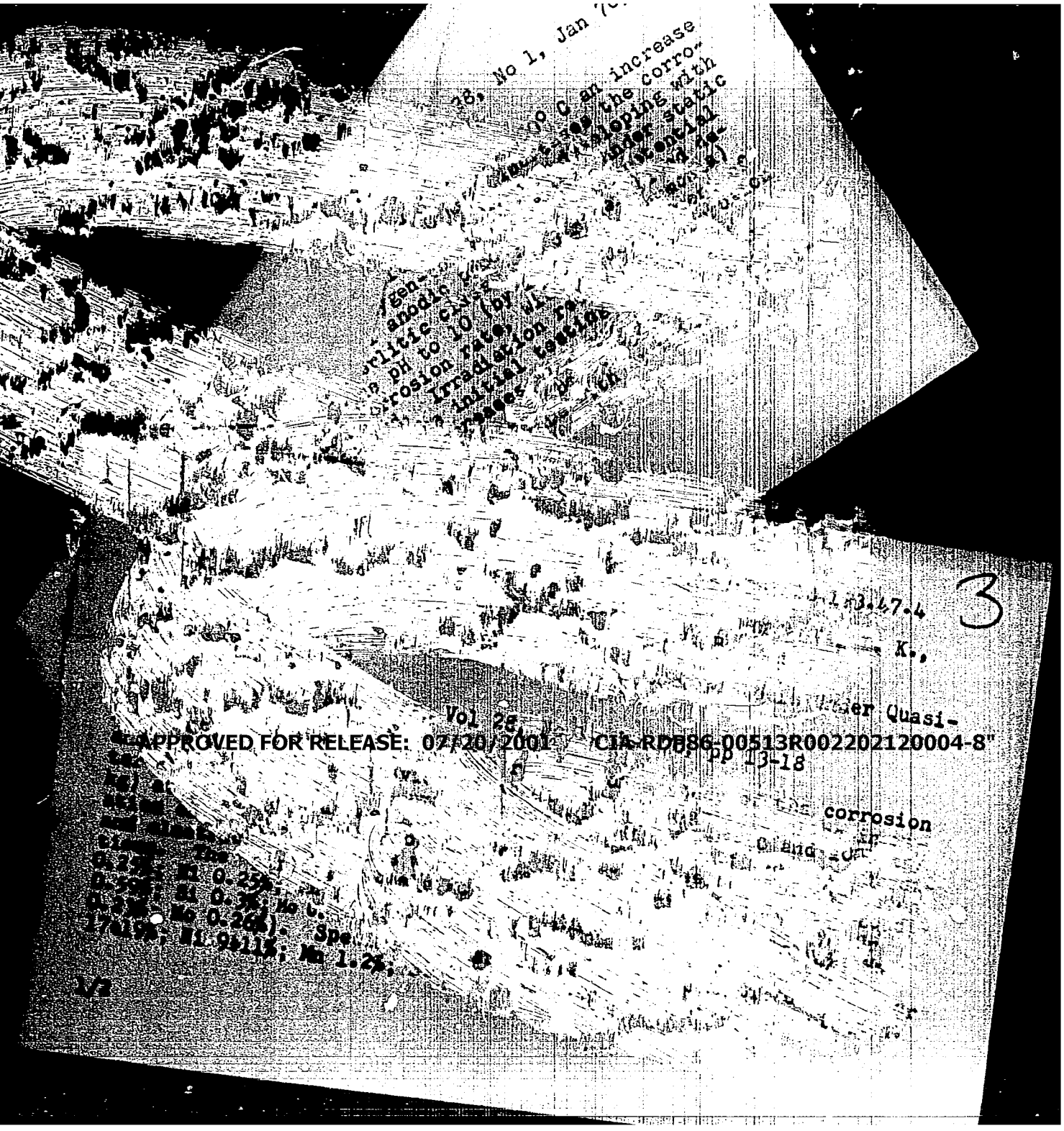

Entomology

UDC 576.895.4

USSR

DAVYDOV, G. S., and MOROZOVA, I. V., Institute of Zoology and Parasitology imeni Academician [redacted], Academy of Sciences Tadzhik SSR, and Central Asian Scientific Research Antiplague Institute

"Gamasid Mites of Western Tadzhikstan. I."

Dushanbe, Izvestiya Akademii Nauk Tadzhikskoy SSR, Otdeleniye Biologicheskikh Nauk, No 3(40), 1970, pp 72-78

Abstract: During 1952-1963 approximately 15,000 Gamasid mites were collected in Western Tadzhikstan from small mammals of 21 species. The Gamasid mites found on 5,174 animals examined and in 59 nests belonged to 50 species. The presence of 21 of these species in Tadshikstan was established for the first time. The 50 species of Gamasid mites are listed. On the basis of results obtained in this investigation and literature data, it was concluded that Gamasid mites of 73 species occur in Tadzhikstan.

1/1

USSR

UDC 576.895.4

DAVYDOV, G. S., and MOROZOVA, I. V., Institute of Zoology and Parasitology imeni Academician Ye. N. Pavlovskiy, Academy of Sciences Tadzhik SSR; Central Asian Antiplague Institute

"Gamasid Mites of Western Tadzhikstan. II"

Dushanbe, Izvestiya Akademii Nauk Tadzhikskoy SSR, Otdeleniya Biologicheskikh Nauk, 4(41), 1970, pp 52-63

Abstract: A study was made of the distribution of Gamasid mites with respect to species and numbers and changes in their numbers according to seasons on rodents in Western Tadzhikstan. Rodents included the rattlemouse, the white-toothed shrew (Crocidura), several species of suslik (Citellus), the small five-toed jerboa (Allactaga elater), the earth rat, the Turkestan rat, house and forest mice, several species of gerbil, and the mole-vole. Data on the distribution of Gamasid mite preying on rodents in various regions of Tadzhikstan are given in the form of tables. The greatest number of Gamasid species was found in the Vakhshskaya Valley (47 species) and in the mountain foothill and mountain regions of Northern Tadzhikstan (45 species). In the mountain foothill - mountain regions of South-Western Tadzhikstan and the Fergana Valley, 21 and 22-species, respectively, were found.

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UDC: 535.373.4:548.0

USSR

MOROZOVA, L. G. and FEOFILOV, P. P.

"Temperature Quenching of Uranium Luminescence in Scheelite Single Crystals"

Leningrad, Optika i Spektroskopiya, No 4, October 1973, pp 789-790

Abstract: This brief communication is based on an earlier paper in the same journal (A. M. Morozov, et al, 32, 1972, p 100) devoted to the luminescence spectra of six-valent uranium in $Me^{II}Me^{VI}O_4$: where Me^{II} is Ca, Sr, Ba; and Me^{VI} is Mo, W, with the structure of scheelite. In the present communication the author describes experiments using the same specimens placed in a thermo-stated device permitting temperature changes from 77 to 500°K and excited by a mercury lamp through a light filter separating out 365 nm wavelength radiation. Given in the form of curves, the results of the experiment show that the region of temperature quenching depends to an unusual extent on the Me^{II} cation. A table of parameters for various types of crystal examined is given. The authors find a probable mechanism for the quenching of the luminescence.

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UDC 535.37:548.0

USSR

MOROZOV, A. M., MOROZOVA, L. G., FEOFILOV, P. P.

"Luminescence of Uranium in Scheelite-Structured Monocrystals"

Leningrad, Optika i Spektroskopiya, No 1, 1972, pp 100-110

Abstract: An investigation is made of activated uranium in monocrystals of molybdates and tungstenates of group II metals with the general formula, $Me^{II}Me^{VI}O$ (Me^{II} = Ca, Sr, Ba; Me^{VI} = Mo, W) with scheelite structures. In this investigation, the authors used very low temperatures, including helium levels, in which unusually rare structures were formed at the centers of several specimens. Growth of the crystals is described and the absorption spectra of the crystals plotted. Examples of the latter are shown for $SrWO_4$-U and $BaWO_4$-U together with the luminescence spectra of $Me^{II}Me^{VI}O_4$-U crystals, and an extensive table of the luminescence spectra of these crystals, obtained at a temperature of 4.2° K, is compiled.

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1/2 029 UNCLASSIFIED PROCESSING DATE--18SEP70

TITLE--OPTICAL CONSTANTS, LUMINESCENCE, AND INDUCED RADIATION OF LANTHANUM NIOBATE SINGLE CRYSTALS ACTIVATED BY NEODYMIUM -U-

AUTHOR-(05)-BAKHSHIYEVA, G.F., KARAPETYAN, V.YE., MORDZOV, A.M., MOROZOVA, L.G., TOLSTOY, M.N.

COUNTRY OF INFO--USSR

SOURCE--OPT. SPEKTROSK. 1970, 28(1), 76-81

DATE PUBLISHED-------70

SUBJECT AREAS--MATERIALS

TOPIC TAGS--SINGLE CRYSTAL, OPTIC PROPERTY, THERMAL EFFECT, LUMINESCENCE, ANISOTROPY, LANTHANUM COMPOUND, NIOBATE, CRYSTAL STRUCTURE

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED

PROXY REEL/FRAME--1980/1315 STEP NO--UR/0051/70/028/001/0076/0081

CIRC ACCESSION NO--AP0049477

UNCLASSIFIED

UDC 620.191.193

USSR

MOROZOVA, I. K., Engineer; GERASIMOV, V. V., Doctor of Technical Sciences; GROMOVA, A. I., Candidate of Technical Sciences; and ZHENIKHOVA, A. V., Engineer

"Dispersed Composition of Corrosion P oducts"

Moscow, Teploenergetika, No 10, Oct 70, pp 72-74

Abstract: The purpose of this work was to study the composition of corrosion products found in water as a function of temperature, pH of the medium, and the oxygen content in it. All tests were conducted under static conditions in an autoclave which had an internal surface made of Kh18N10T steel or steel 20. Test time was 100 hours. Test solutions were neutralized deaerated water, NH_4OH (pH = 10), and HNO_3 (pH = 3). After testing, the solution and deposits were removed with a pipet and the autoclave was washed three times with distilled water.

Results of these tests showed that of the particles measuring less than 0.1 micron only 1-2% retain their sizes in the case when the iron is in the ionic form and only 3-6% when

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USSR

MOROZOVA, I. K., et al., Teploenergetika, No 10, Oct 70, pp 72-74

the iron is in the colloidal form. The remaining iron is distributed as follows: from 40 to 80% remains in solution in the form of coarse particles (greater than 10 microns) and 15-33% can be observed in the form of deposits on samples of alloys of titanium, zirconium, and nickel. The remaining iron was deposited on the autoclave walls. The test showed that particles less than 0.1 micron is size, obtained at room temperature, increase in size to larger than 10 microns when placed in a medium with a temperature of 300 C.

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Acc. Nr: AP0042127 Abstracting Service: NUCLEAR SCI. ABST. 4-70 Ref. Code: IR0089

3

12371 CORROSION AND ELECTROCHEMICAL BEHAVIOR OF CARBON STEELS UNDER CONDITIONS SIMILAR TO THOSE IN REACTOR OPERATION. Gerasimov, V. V.; Gromoun, A. I.; Lupakov, I. S.; Morozova, I. K.; Balmulevskii, A. A.; Belous, V. N.; Kolesov, B. I. At. Energ. (USSR): 28: 13-18(Jan 1970). (In Russian).

The corrosion and electrochemical behavior of carbon steels was studied in water at 300°C with oxygen concentrations equal to 0.02 to 40 and 1000 ppM. The samples of carbon steels, irradiated in the reactor and non-irradiated samples were tested under static and dynamic conditions. The increase of oxygen concentration in water intensified corrosion of carbon steels. Irradiation reduced steel corrosion resistance during the initial test period. (auth)

pc

1/1

REEL/FRAME
19760028

18

USSR

UDC 621.039.553.36:620.193.47.4

GERASIMOV, V. V., GROMOVA, A. I., LUPAKOV, I. S., MOROZOVA, I. K., BAKULEVSKIY, A. A., BELOUS, V. N., and KOLESOV, B. I.

"Corrosion and Electrochemical Behavior of Carbon Steels Under Quasi-reactor Conditions"

Moscow, Atomnaya Energiya, Vol 28, No 1, Jan 70, pp 13-18

Abstract: The article describes results of a study of the corrosion and electrochemical behavior of steels of the perlitic class in water at 300° C at various oxygen concentrations (0.02-40 and 1000 mg/kg) at pH = 7-10, as well as a study of the effect of reactor irradiation on the corrosion processes of perlitic steels. The corrosion and electrochemical tests were staged under static and dynamic conditions. The perlitic steels studied included St. 20 (C 0.17%; Cr 0.25%; Ni 0.25%; Mn 0.35%; Si 0.17%) ; 12KhM (C 0.12%; Cr 0.94%; Mn 0.59%; Si 0.3%; Mo 0.4%); and 16GNM (C 0.18%; Ni 1.41%; Mn 1.18%; Si 0.23%; Mo 0.26%). Specimens of stainless steel Kh18N10T (C 0.08%; Cr 17÷19%; Ni 9÷11%; Mn 1.2%; Si 0.8%; Ti 0.6%) were comparison-tested.

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USSR

GERASIMOV, V. V., et al., Atomnaya Energiya, Vol 28, No 1, Jan 70, pp 13-18

It was found that in demineralized water at 300° C an increase in the oxygen concentration from 0.02 to 40 mg/l increases the corrosion rate of perlitic steels, with pitting corrosion developing with a pit depth of up to 0.1 mm. In oxygen-containing water under static conditions a complex dependence of anodic process rate on potential is observed in steels of the perlitic class. In demineralized deaerated water an increase in the pH to 10 (by introducing ammonia) results in a decrease in the corrosion rate, with no development of pitting corrosion being observed. Irradiation reduces the corrosion resistance of the steels during the initial testing period. The corrosion rate under irradiation decreases with an increase in exposure time, and after 3500 hours of tests the corrosion rate for the perlitic steels is practically the same with or without irradiation.

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Entomology

USSR

UDC 576.895.4

DAVYDOV, G. S., and MOROZOVA, I. V., Institute of Zoology and Parasitology imeni Academician [illegible] N. Pavlovskiy, Academy of Sciences Tadzhik SSR, and Central Asian Scientific Research Antiplague Institute

"Gamasid Mites of Western Tadzhikstan. I."

Dushanbe, Izvestiya Akademii Nauk Tadzhikskoy SSR, Otdeleniye Biologicheskikh Nauk, No 3(40), 1970, pp 72-78

Abstract: During 1952-1963 approximately 15,000 Gamasid mites were collected in Western Tadzhikstan from small mammals of 21 species. The Gamasid mites found on 5,174 animals examined and in 59 nests belonged to 50 species. The presence of 21 of these species in Tadshikstan was established for the first time. The 50 species of Gamasid mites are listed. On the basis of results obtained in this investigation and literature data, it was concluded that Gamasid mites of 73 species occur in Tadzhikstan.

USSR

UDC 576.895.4

DAVYDOV, G. S., and MOROZOVA, I. Y., Institute of Zoology and Parasitology imeni Academician Ye. N. Pavlovskiy, Academy of Sciences Tadzhik SSR; Central Asian Antiplague Institute

"Gamasid Mites of Western Tadzhikstan. II"

Dushanbe, Izvestiya Akademii Nauk Tadzhikskoy SSR, Otdeleniya Biologicheskikh Nauk, 4(41), 1970, pp 52-63

Abstract: A study was made of the distribution of Gamasid mites with respect to species and numbers and changes in their numbers according to seasons on rodents in Western Tadzhikstan. Rodents included the rattlemouse, the white-toothed shrew (Crocidura), several species of suslik (Citellus), the small five-toed jerboa (Allactaga elator), the earth rat, the Turkestan rat, house and forest mice, several species of gerbil, and the mole-vole. Data on the distribution of Gamasid mite preying on rodents in various regions of Tadzhikstan are given in the form of tables. The greatest number of Gamasid species was found in the Vakhshskaya Valley (47 species) and in the mountain foothill and mountain regions of Northern Tadzhikstan (45 species). In the mountain foothill - mountain regions of South-Western Tadzhikstan and the Fergana Valley, 21 and 22-species, respectively, were found.

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USSR

UDC: 535.373.4:548.0

MOROZOVA, L. G. and FEOFILOV, P. P.

"Temperature Quenching of Uranium Luminescence in Scheelite Single Crystals"

Leningrad, Optika i Spektroskopiya, No 4, October 1973, pp 789-790

Abstract: This brief communication is based on an earlier paper in the same journal (A. M. Morozov, et al, 32, 1972, p 100) devoted to the luminescence spectra of six-valent uranium in $Me^{II}Me^{VI}O_4$: where Me^{II} is Ca, Sr, Ba; and Me^{VI} is Mo, W, with the structure of scheelite. In the present communication the author describes experiments using the same specimens placed in a thermostated device permitting temperature changes from 77 to 500°K and excited by a mercury lamp through a light filter separating out 365 nm wavelength radiation. Given in the form of curves, the results of the experiment show that the region of temperature quenching depends to an unusual extent on the Me^{II} cation. A table of parameters for various types of crystal examined is given. The authors find a probable mechanism for the quenching of the luminescence.

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UDC 535.37:548.0

USSR

MOROZOV, A. M., MOROZOVA, L. G., FEOFILOV, P. P.

"Luminescence of Uranium in Scheelite-Structured Monocrystals"

Leningrad, Optika i Spektroskopiya, No 1, 1972, pp 100-110

Abstract: An investigation is made of activated uranium in monocrystals of molybdates and tungstenates of group II metals with the general formula, $Me^{II}Me^{VI}O$ (Me^{II} = Ca, Sr, Ba; Me^{VI} = Mo, W) with scheelite structures. In this investigation, the authors used very low temperatures, including helium levels, in which unusually rare structures were formed at the centers of several specimens. Growth of the crystals is described and the absorption spectra of the crystals plotted. Examples of the latter are shown for $SrWO_4$-U and $BaWO_4$-U together with the luminescence spectra of $Me^{II}Me^{VI}O_4$-U crystals, and an extensive table of the luminescence spectra of these crystals, obtained at a temperature of 4.2° K, is compiled.

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1/2 029 UNCLASSIFIED PROCESSING DATE--18SEP70

TITLE--OPTICAL CONSTANTS, LUMINESCENCE, AND INDUCED RADIATION OF LANTHANUM NIOBATE SINGLE CRYSTALS ACTIVATED BY NEODYMIUM -U-

AUTHOR-(05)-BAKHSHIYEVA, G.F., KARAPETYAN, V.YE., MOROZOV, A.M., MOROZOVA, L.G., TOLSTOY, M.N.

COUNTRY OF INFO--USSR

SOURCE--OPT. SPEKTROSK. 1970, 28(1), 76-81

DATE PUBLISHED--------70

SUBJECT AREAS--MATERIALS

TOPIC TAGS--SINGLE CRYSTAL, OPTIC PROPERTY, THERMAL EFFECT, LUMINESCENCE, ANISOTROPY, LANTHANUM COMPOUND, NIOBATE, CRYSTAL STRUCTURE

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED

PROXY REEL/FRAME--1980/1315 STEP NO--UR/0051/70/028/001/0076/0081

CIRC ACCESSION NO--AP0049477

UNCLASSIFIED

2/2 029 UNCLASSIFIED PROCESSING DATE--18SEP70

CIRC ACCESSION NO--AP0049477

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. LANBO SUB4 SINGLE CRYSTALS DIAM. 8-15, LENGTH 70 MM WERE ISOLATED FROM THE MELT AFTER HIGH TEMP. TREATMENT OF LANBO SUB4 IN INERT ATM. UNACTIVATED CRYSTALS AND CRYSTALS ACTIVATED WITH 1 MOLE PERCENT ND PRIME3 POSITIVE WERE STUDIED. UNACTIVATED CRYSTALS ARE TRANSPARENT IN THE RANGE 0.27-6.5MU; THE LIGHT ABSORPTION IN THE RANGE 6.5-9.0 MU CORRESPONDS TO THE VIBRATIONAL FREQUENCIES OF NBO SUB4 TETRAHEDRONS. N WAS OBTAINED AT 5 WAVELENGTHS IN THE RANGE 435.8-656.3 MMU. STRONG BIREFRINGENCE WAS OBSD. ACTIVATION OF THE SINGLE CRYSTALS WITH ND PRIME3 POSITIVE CAUSED STRONG ANISOTROPY OF THE CRYSTALS. LUMINESCENCE SPECTRA WERE RUN AT 77DEGREESK. THE LUMINESCENCE DURATION WAS 120 MUSEC AT ROOM TEMP.; IT DID NOT CHANGE ON HEATING OF THE ACTIVATED SINGLE CRYSTAL TO 250DEGREES. THREE AXIAL ELLIPSOIDS WERE CONSTRUCTED FOR THE SEP. LINES IN THE LUMINESCENCE SPECTRA OF LANBO SUB4 MINUS ND PRIME3 POSITIVE SCANNED IN POLARIZED LIGHT. GENERATION OF FORCED RADIATION OCCURRED IN THE ACTIVATED SINGLE CRYSTALS AT A SINGLE FREQUENCY, 1.0624 MU. SHIFT TO 1.0622 MU OCCURRED ON HEATING OF THE CRYSTAL TO 300DEGREES.

UNCLASSIFIED

1/2 029 UNCLASSIFIED PROCESSING DATE--18SEP70

TITLE--OPTICAL CONSTANTS, LUMINESCENCE, AND INDUCED RADIATION OF LANTHANUM NIOBATE SINGLE CRYSTALS ACTIVATED BY NEODYMIUM -U-

AUTHOR-(05)-BAKHSHIYEVA, G.F., KARAPETYAN, V.YE., MOROZOV, A.M., MOROZOVA, L.G., TOLSTOY, M.N.

COUNTRY OF INFO--USSR

SOURCE--OPT. SPEKTROSK. 1970, 28(1), 76-81

DATE PUBLISHED--------70

SUBJECT AREAS--MATERIALS

TOPIC TAGS--SINGLE CRYSTAL, OPTIC PROPERTY, THERMAL EFFECT, LUMINESCENCE, ANISOTROPY, LANTHANUM COMPOUND, NIOBATE, CRYSTAL STRUCTURE

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED

PROXY REEL/FRAME--1980/1315 STEP NO--UR/0051/70/028/001/0076/0081

CIRC ACCESSION NO--AP0049477

UNCLASSIFIED

APPROVED FOR RELEASE: 07/20/2001 CIA-RDP86-00513R002202120004-8"

UNCLASSIFIED PROCESSING DATE--18SEP70

2/2 029

CIRC ACCESSION NO--AP0049477

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. LANBO SUB4 SINGLE CRYSTALS DIAM. 8-15, LENGTH 70 MM WERE ISOLATED FROM THE MELT AFTER HIGH TEMP. TREATMENT OF LANBO SUB4 IN INERT ATM. UNACTIVATED CRYSTALS AND CRYSTALS ACTIVATED WITH 1 MOLE PERCENT ND PRIME3 POSITIVE WERE STUDIED. UNACTIVATED CRYSTALS ARE TRANSPARENT IN THE RANGE 0.27-6.5MU; THE LIGHT ABSORPTION IN THE RANGE 6.5-9.0 MU CORRESPONDS TO THE VIBRATIONAL FREQUENCIES OF NBO SUB4 TETRAHEDRONS. N WAS OBTAINED AT 5 WAVELENGTHS IN THE RANGE 435.8-656.3 MMU. STRONG BIREFRINGENCE WAS OBSD. ACTIVATION OF THE SINGLE CRYSTALS WITH ND PRIME3 POSITIVE CAUSED STRONG ANISOTROPY OF THE CRYSTALS. LUMINESCENCE SPECTRA WERE RUN AT 77DEGREESK. THE LUMINESCENCE DURATION WAS 120 MUSEC AT ROOM TEMP.; IT DID NOT CHANGE ON HEATING OF THE ACTIVATED SINGLE CRYSTAL TO 250DEGREES. THREE AXIAL ELLIPSOIDS WERE CONSTRUCTED FOR THE SEP. LINES IN THE LUMINESCENCE SPECTRA OF LANBO SUB4 MINUS ND PRIME3 POSITIVE SCANNED IN POLARIZED LIGHT. GENERATION OF FORCED RADIATION OCCURRED IN THE ACTIVATED SINGLE CRYSTALS AT A SINGLE FREQUENCY, 1.0624 MU. SHIFT TO 1.0622 MU OCCURRED ON HEATING OF THE CRYSTAL TO 300DEGREES.

UNCLASSIFIED

1/2 008 UNCLASSIFIED PROCESSING DATE--30OCT70

TITLE--19,NORSTEROIDS. PREPARATION OF 5 ALPHA,HALO,6 BETA,19, OXIDOANDROSTAN,3 BETA,OL,17,ONE ACETATES -U-

AUTHOR-(04)-SAMSONOVA, N.V., MOROZOVA, L.S., LURI, F.A., MAKSIMOV, V.I.

COUNTRY OF INFO--USSR

SOURCE--KHIM.-FARM. ZH. 1970, 4(2), 5-10

DATE PUBLISHED-------70

SUBJECT AREAS--CHEMISTRY

TOPIC TAGS--CHEMICAL SYNTHESIS, ACETATE, CATALYST

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED

PROXY REEL/FRAME--1998/0490 STEP NO--UR/0450/70/004/002/0005/0010

CIRC ACCESSION NO--AP0121164

UNCLASSIFIED

2/2 008 UNCLASSIFIED PROCESSING DATE--30OCT70

CIRC ACCESSION NO--AP0121164

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. 1 WERE CONVERTED INTO II. THUS, 1 G I, 1.6 G PB(OAC) SUB4, AND 0.23-0.26 G IODINE WAS REFLUXED IN 30 ML C SUB6 H SUB6 WITH IRRADN. (100-500 W LAMP) 45-60 MIN TO GIVE A PRODUCT 188-190DEGREES IN IS LARGER THAN 80PERCENT YIELD. BEST YIELDS (90PERCENT) WERE OBTAINED WHEN CCL SUB4 WAS USED INSTEAD OF C SUB6 H SUB6. THE REACTION COULD BE DONE WITHOUT ANY IRRADIATION IN CCL SUB4 (RATIO I-CCL SUB4 EQUALS 1:100) THE YIELDS BEING 70PERCENT. WHEN ALPHA,ALPHA PRIME, AZOBISISOBUTYRONITRILE WAS USED AS A CATALYST, YIELDS OF II WERE 70PERCENT. FACILITY: VSES. NAUCH.-ISSLED. KHIM.-FARM. INST. IM. ORDZHONIKIDZE, MOSCOW, USSR.

UNCLASSIFIED

USSR

UDC 616.988.75(A-2)-092:612.118.221.2

FROLOV, V. K., SOKHIN, A. A., SOTNIK, A. Ya., and MOROZOVA, L. I., Donetskaya Oblast Epidemiological Station, Medical Institute, and Donetskaya Oblast Blood Transfusion Station, Donetsk

"A2 (Hong Kong) Influenza and the ABO and Rh Blood Groups"

Moscow, Voprosy Virusologii, No 6, 1972, pp 701-703

Abstract: A correlation was noted between ABO blood group and susceptibility to influenza among 2,289 patients with clinically diagnosed influenza and acute respiratory disease during the Jan/Mar 1970 A2 (Hong Kong) influenza epidemic in Donestskaya Oblast. Patients with blood groups O and AB were more susceptible to influenza than type A and B patients. A similar correlation was seen among 1,167 patients with serologically diagnosed influenza and among 72 influenza fatalities. Distribution of Rh factor was identical for patients and healthy individuals. Reasons for such correlation remain unknown.

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SPRS 5903
6.73

MOROZOVA, L.N.

VII-11. THERMAL DECOMPOSITION OF TRIMETHYL GALLIUM IN INERT GAS AND HYDROGEN FLOWS

[Article by N. M. Korenchuk, Ye. Ye. Gribberg, L. N. Morozova, V. P. Potapalov, Kaluga; Novosibirsk, III Simposium po Protsessam Rosta i Sinteza Poluprovodnikovykh Kristallov i Plenok, Russian, 12-17 June 1972, p 94]

At the present time a prospective method for obtaining film of $A^{III}_{B}V$ compounds is the use of organometallic compounds and hydrides. Therefore, the mechanism of thermal decomposition of these components in various gas carriers is of interest. In this paper results are presented from a study of the thermal decomposition of trimethyl gallium (TMG) in helium and hydrogen flows.

The method of gas chromatography was used to determine the products of pyrolysis of TMG.

It was found that the basic components of the gaseous decomposition product of $Ga(CH_3)_3$ in the helium flow in the temperature range of 400 to 700° C are ethane, ethylene and propylene. When studying the thermal decomposition of TMG in the hydrogen flow in the same temperature range, the presence of only molecular methane was established.

The results of this paper permit a conclusion to be drawn regarding the selection of the TMG gas carrier to obtain $A^{III}_{B}V$ epitaxial films.

USSR

UDC 621.81.539.4

DEMIDOV, A. S., GORLOV, V. B. and MOROZOVA, L. P.

"An Investigation of Stresses on Models of a Tube Sheet Made of Optically Active Material"

Moscow, Tr. Mosk. aviats. in-ta (Transactions of the Moscow Aviation Institute), Vyp 245, 1972, pp 5-13 (from Referativnyy Zhurnal -- Mekhanika, No 4, 1973, Abstract No 4V1254 by V. I. Baulin)

Translation: Experiments on the determination of stress in models of the tube sheet of a shell-and-tube heat exchanger of the rigid type made of the optically active material ED6-M are considered. Hydrostatic loading was imitated on the model using a lead shot layer placed in asbestos paper. The axial loading towards the sides of the tube packet is simulated by weights suspended from cams, made of the same ED6-M material and glued to the holes of the tube sheet. Corresponding to the concrete scheme of loading of the tube sheet, certain weights, suspended through blocks, simulate the force action of tubes of the opposite sign.

The values of the hydrostatic loading and the axial forces from the tubes are determined by calculating the concrete heat-exchanger, introducing the corresponding coefficients of force and geometric simulation. Calculations of

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USSR

DEMIDOV, A. S., et al., Tr. Mosk. aviats. in-ta, Vyp 245, 1972, pp 5-13

tube sheet models with already known loading are conducted analogously. A comparison of the stresses obtained by calculated and experimental means is conducted. It is mentioned that the character of the calculated determination of stresses from bending moment as a whole corresponds to the experimental data; because of concentration the stresses near the apertures are maximal. The stresses near the apertures exceed by 15-30% the mean experimental stresses.

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USSR UDC 615.371:576.851.71].015.4:616.981.711-097.5

NIKOL'SKAYA, V. N., IGNATOVICH, V. F., and MOROZOVA, M. Yu., Institute of Epidemiology and Microbiology imeni Gamaleya, USSR Academy of Medical Sciences, Moscow

"A Possibility of Using Serological Methods for Additional Evaluation of the Intensity of Typhus Immunity in Guinea Pigs"

Moscow, Zhurnal Mikrobiologii Epidemiologii i Immunobiologii, No 5, May 71, pp 137-141

Abstract: A vaccination against typhus which produces clinical immunity does not necessarily produce serological immunity. In this study performed on a large number of guinea pigs, it was shown that some vaccines produce a high titer of complement fixing antibodies which -- upon subsequent inoculation with typhus bacteria -- either falls or does not change, or rises less than two-fold. Other vaccines, though they also confer clinical immunity, give rise to a small antibody titer. After subsequent infection with the typhus pathogen, the titer increases more than four-fold, which indicates that rickettsiae -- though they do not produce clinical signs of disease -- proliferate in the body until the concentration of antibodies rises to an effective

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USSR

NIKOL'SKAYA, V. N., et al, Zhurnal Mikrobiologii Epidemiologii i Immunobiologii, No 5, May 71, pp 137-141

level. It is concluded that a double determination of antibody titer in experimental animals -- once after vaccination and a second time after infection -- is a good method of evaluating the strength of immunity induced by a typhus vaccine.

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USSR

UDC 539.216.2:538.221

PALATNIK, L. S., LUKASHENKO, L. I., ZOLOTNITSKIY, YU. V., and MOROZOVA, N. I., Kharkov Polytechnic Institute imeni V.I. Lenin

"Domain Structure of Permalloy Films With Perpendicular Anisotropy"

Sverdlovsk, Fizika Metallov i Metallovedeniye, Vol 35, No 5, 1973, pp 941-946

Abstract: Using the powder pattern on two opposite sides of permalloy films, the volumetric distribution model of domain boundaries was derived, according to which the domains form plane-parallel layers at some distance from the permalloy film surface (thickness of films was 100 μm). Domains of the reverse magnetization in a shape of cones were visible inside the principal domains, immediately below the film surface. They were (0.15-0.20) h high, with a base diameter equal to approximately one half of the width of a principal domain. Rows of the conical domains at two opposite sides of a film were shifted by one half of the period with respect to each other. This model agrees in principle with the one suggested before by the authors. However, domains of closure were not detected in the film layer next to the surface, and no domains were found with a gradually decreasing diameter. Very often wedges were visible within the cross-section of a film. Walls of the principal domains deviated from normal in the next-to-surface layer at a depth of the

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USSR

PALATNIK, L. S., et al., Fizika Metallov i Metallovedeniye, Vol 35, No 5, 1973, pp 941-946

conical domains. These walls were not revealed on the film surface by the powder pattern method and their distribution was not established. The perpendicular anisotropy constant of Permalloy films was considerably lower than that of cobalt and other uniaxial single crystals.

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1/2 016 UNCLASSIFIED PROCESSING DATE--13NOV70

TITLE--REDUCTION OF POLYATOMIC MOLECULE ELECTRON ENERGY OPERATOR MATRIXES WITH REFERENCE TO SYMMETRY -U-

AUTHOR-(02)-MOROZOV, V.P., MOROZOVA, N.K.

COUNTRY OF INFO--USSR

SOURCE--DOPOV. AKAD. NAUK UKR. RSR, SER. B 1970, 32(2), 155-9

DATE PUBLISHED-------70

SUBJECT AREAS--PHYSICS

TOPIC TAGS--MOLECULAR STRUCTURE, ELECTRON ENERGY LEVEL, HAMILTONIAN, MATRIX FUNCTION, MATHEMATIC OPERATOR

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED

PROXY REEL/FRAME--3009/1643 STEP NO--UR/0442/70/032/002/0155/0159

CIRC ACCESSION NO--AT0133548

UNCLASSIFIED

2/2 016 UNCLASSIFIED PROCESSING DATE--13NOV70

CIRC ACCESSION NO--AT0133548

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. A DESCRIPTION OF CONSTRUCTION OF SYMMETRY OPERATORS AND THAT OF HAMILTONIAN OPERATOR INVARIANT TO THE FORMER IN THE SPACE OF THE NATURAL ATOM ORBITALS IS GIVEN. THE PRINCIPAL IDEA IS FORMULATED OF REDUCING THE HAMILTONIAN OPERATOR MATRIX TO A SQUARE DIAGONAL TYPE. THE TECHNIQUE OF THE DIAGONALIZATION ORIENTATION AND CORRELATION OPERATIONS IS DESCRIBED. FACILITY: DNEPROPETROVSK. INZH.-BUD. INST., DNEPROPETROVSK, USSR.

UNCLASSIFIED

UDC 541.69+542.91+547.631.4

USSR

GAMBURYAN, A. A., BABIYAN, N. A., MOROZOVA, N. M., AKOPYAN, N. YE., CHAUSHYAN, K. M., and MNDZHOYAN, L. O., Institute of Fine Organic Chemistry imeni A. L. Mndzhoyan, Academy of Sciences Armenian SSR, Yerevan

"Studies in the Field of Aminoethers. V. Dialkylaminoalkyl Ethers of Benzhydrol and o-, m-, and p-Benzydrols - their Synthesis and Neuropharmacological Activity"

Yerevan, Armyanskiy Khimicheskiy Zhurnal, Vol 24, No 10, 1971, pp 900-908

Abstract: By the rearrangement of quaternary salts formed by aminoalcohols with benzhydryl chlorides, the aminoethers RC_6H_4-CH(Ph)-OC_nH_{2n}-NR'_2 were prepared, where R = H or o-, m-, p-Me; R' = Me, Et; C_nH_{2n} = $(CH_2)_2$, $(CH_2)_3$, $(CH_2)_4$, CH(Me)CH_2CH_2, CH(Me)CH(Me), $CH_2C(Me)_2CH_2$. Physiological tests carried out with the aminoethers upon their conversion to hydrochlorides showed that transition from beta-dialkylaminoethyl ethers to propyl ethers increased the antispasmodic activity. This activity again decreased on transition to dialkylaminobutyl ethers. Some of the compounds that has been prepared exhibited an antihistaminic activity in tests on the isolated intestine of guinea pigs.

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USSR

GAMBURYAN, A. A., et al., Armyanskiy Khimicheskiy Zhurnal, Vol 24, No 10, 1971, pp 900-908

The compounds synthesized together with their physical properties and the melting points of hydrochlorides or iodomethylates are listed in tables.

2/2

UDC: 669.27:548.55:539.579.4

USSR

CHUPYATOVA, L. P., KHUDYUMOV, V. G., MOROZOVA, N. P., PIKUNOV, M. V., SHISHKOV, V. V., State Scientific Research and Design Institute of the Rare Metals Industry, Institute of General Metallurgy and Physics of Metals of the Central Scientific Research Institute of Ferrous Metallurgy imeni I. I. Bardin, Moscow

"Pseudosymmetry of {110} Slip in Tungsten Single Crystals"

Moscow, Doklady Akademii Nauk SSSR, Vol 213, No 2, 11 Nov 73, pp 325-328

Abstract: A characteristic feature of the slip geometry and stress-strain curves of tungsten crystals is their strong orientation dependence: the yield point of crystals with the tension axis oriented close to [001] is considerably lower than in crystals oriented close to angle [011] of the standard triangle. This effect is usually attributed to the asymmetry of shear in plane {112}, which is typical of metals with a bcc lattice. However, research has now shown that in crystals of low-purity tungsten {112} slip is suppressed. Nevertheless the difference in yield points for

USSR

CHUPYATOVA, L. P. et al., Doklady Akademii Nauk SSSR, Vol 213, No 2, 11 Nov 73, pp 325-328

crystals of the indicated orientations remains. In this paper the authors examine experimental data obtained on "dirty" single crystals of tungsten, and discuss the effect of "pseudoasymmetry" observed for {110} slip in such crystals. Tentative hypotheses are proposed to explain the observed effect.

2/2

USSR

ASHURLY, Z. I., BABAYAN, V. G., YEMEL'YANOV, Yu. M., MOROZOVA, N. P., FEDOTOVA, T. A.

"Effect of the Frequency on the Ignition Voltage in an Ozonizer"

Moscow, Khimiya i Fizika Nizkotemperaturnoy Plazmy, Moscow University Press, 1971, pp 121-125

Abstract: The authors investigate the ignition voltage as a function of frequency in an ozonizer with a 3 mm discharge gap at frequencies of 50, 500, 1000, 2000, and 3000 Hz. The reactor was a flat ozonizer of special design which fed the gas into the discharge zone of the ozonizer. The dielectric barriers were glass plates ground on both sides 1 mm thick and 100 mm in diameter with plexiglass rings glued to the edges to prevent breakdown on the glass surface. Ground aluminum electrodes 70 mm in diameter were applied to the glass plates. It was found that the ignition voltage decreases from 6900 to 5300 volts when the frequency increases from 50 to 3000 Hz. The experimental results agree satisfactorily with theoretical calculations. Two figures, one table, bibliography of ten titles.

1/1

USSR

UDC: 621.372.41.01-501.22

KOVZAN, A. A., MOROZOVA, R. A.

"Analysis of Type K Reactive Filters Loaded by a Fixed Resistance"

Tr. Mosk. aviats. in-ta (Works of the Moscow Aviation Institute), 1970, vyp. 220, pp 129-135 (from RZh-Radiotekhnika, No 5, May 71, Abstract No 5A107)

Translation: A condition is derived for signal transmission through a type K reactive iteration filter with Chebyshev characteristic of the insertion loss in the passband. Characteristic functions are found for a symmetric and an asymmetric filter. Three illustrations, bibliography of four titles. N. S.

1/1

UDC: 621.3.049.75:774

USSR

LAVRISHCHEV, V. P., VOZHENIN, I. N., KANDYBA, P. Ye., KOROZOVA, R. A., POMENKO, P. A.

"A Method of Making Microcircuits"

Moscow, Otkrytiya, Izobreteniya, Promyshlennyye Obraztsy, Tovarnyye Znaki, No 18, 1970, Author's Certificate No 271598, filed 6 May 68, p 41

Abstract: This author's certificate introduces a method of making microcircuits based on repeated selective chemical etching. As a distinguishing feature of the patent, the procedure is designed to provide a broad range of resistor values in a single microcircuit and to simplify manufacturing technology. Resistive layers with various resistivities are applied in sequence to the substrate in order of decreasing resistivity, and the technological layer is used for making low-value resistors.

1/1

UDC: 612.766.2

USSR

KOVALENKO, Ye. A., POPKOV, V. L., KONDRAT'YEV, Yu. I., MAILYAN, E. S., GALUSHKO, Yu. S., PROKHONCHUKOV, A. A., KAZARYAN, V. A., MOROZOVA, R. S., SEROVA, L. V., POTAPOV, A. N., ROMANOV, V. S., and PISHCHIK, V. B.

"Shifts in the Functions of the Organism During Prolonged Hypolinesia"

Moscow, Patologicheskaya Fiziologiya i Eksperimental'naya Terapiya, Vol 14, No 6, Nov/Dec 70, pp 3-9

Abstract: Rats kept immobilized for up to 170 days in special cages showed an increase in general gas exchange and rate of oxygen utilization in the muscles, and a slowing of the rate of tissue metabolism in the liver and myocardium. The level of phosphotylation in the myocardium and, to some extent, in the skeletal muscles and liver dropped. Prolonged hypokinesia also stunted the animals' growth, pervented them from gaining weight, and in some cases caused them to lose weight. Besides disturbing mineral and protein metabolism, immobilization resulted in exhaustion of the hypothalamus - pituitary - adrenal cortex system.

1/2 011 UNCLASSIFIED PROCESSING DATE--30OCT70

TITLE--HYDROCARBON COMPOSITION OF PETROLEUM FROM THE YUZHNO-IGLATANSKII DEPOSIT IN THE TURKMEN SSR -U-

AUTHOR-(04)-GUREVICH, M.G., KOLESNIKOVA, L.P., MOROZOVA, S.F., SAMOZVANTSEVA, M.S.

COUNTRY OF INFO--USSR

SOURCE--GAZOV. DELO 1970, (1), 30-2

DATE PUBLISHED--------70

SUBJECT AREAS--EARTH SCIENCES AND OCEANOGRAPHY, MATERIALS

TOPIC TAGS--PETROLEUM DEPOSIT, CHEMICAL COMPOSITION, AROMATIC HYDROCARBON, CRUDE OIL, GEOGRAPHIC LOCATION, CHROMATOGRAPHIC ANALYSIS

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED

PROXY REEL/FRAME--3003/0435 STEP NO--UR/0508/70/000/001/0030/0032

CIRC ACCESSION NO--AP0129660

UNCLASSIFIED

UNCLASSIFIED PROCESSING DATE--30OCT7C

2/2 011

CIRC ACCESSION NO--AP0129660

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. PETROLEUM FROM JURASSIC DOLOMITE SEAMS AT 3500 M IN THIS DEPOSIT YEILDED ON SEPN. BY CAPILLARY CHROMATOG. 11 AND 27PERCENT OF FRACTIONS B. LESS THAN OR EQUALS TO 125DEGREES (A) AND LESS THAN OR EQUAL TO 200DEGREES (B), RESP. IN A WERE DETD. THE INDIVIDUAL C SUB4-8 PARAFFINIC AND C SUB5-9 NAPHTHENIC HYDROCARBONS COMPRISING 75 AND 15PERCENT, RESP., OF IT AND 8.29 AND 1.71PERCENT, RESP., OF THE PETROLEUM. IN B WERE DETD. THE INDIVIDUAL C SUB6-11 AROMATIC HYDROCARBONS COMPRISING 100PERCENT OF IT AND 3.73PERCENT OF THE PETROLEUM. N,ALKANE CONTENT ROSE FROM 54PERCENT IN C SUB5 , TO 71PERCENT IN C SUB8,ALKANES. THE N-ISO RATIO WAS 1.86 FOR THE ALKANES (2.2PERCENT C SUB4, 14.7PERCENT C SUB5, 18.6PERCENT C SUB6, 20.8PERCENT C SUB7, 26.5PERCENT C SUB8), AND THE CYCLOHEXANES CYCLOPENTANES HYDROCARBON RATIO WAS 1.41:1 FOR THE NAPHTHENES. C SUB6, C SUB7, AND C SUB8 COMPDS. COMPRISED 5.67, 22.16, AND 33.12PERCENT, RESP., OF THE AROMATIC HYDROCARBONS. FACILITY: MINKHGP IM. GUBKINA, MOSCOW, USSR.

UNCLASSIFIED

Psychiatry

UDC 616.8:313.13(47)

USSR

MOROZOVA, T. G., and LUKACHER, G. Ya., Main Administration for Therapeutic and Prophylactic Care, Ministry of Health USSR, and Central Scientific Research Institute of Forensic Psychiatry imeni Serbskiy Ministry of Health USSR, Moscow

"Structure of Neurological Morbidity in the USSR"

Moscow, Zhurnal Nevropatologii i Psikhiatrii imeni S. S. Korsakov, Vol 70, No 7, 1970, pp 1060-1066

Abstract: An analysis is presented of the incidence of neurological diseases in the USSR, based on reports of visits to doctors, clinical cases, and hospitalizations for the USSR as a whole and for the union republics, oblasts, krays and autonomous republics of the RSFSR and the cities of Moscow and Leningrad for 1964 and 1965. According to these data, 3.4% of persons 14 years old or older suffered from neurological diseases in 1965. For the USSR as a whole, diseases of the peripheral nervous system were most common (43%), followed by neurovascular disorders (18.4%), neuroses (18.2%), and others CNS diseases (12.9%). Diseases of the peripheral nervous system were also highest in frequency in each of the union republics. In all of the union republics, disorders caused by atherosclerosis predominated among patients suffering from vascular diseases of the CNS. Such

1/2

cases were more than twice as numerous as those caused by hypertension. Neuroses ranged from 5.6% (in the Kazakh SSR) to 33.0% (in the Azerbaydzhan SSR) of the neurological diseases. Cases of epilepsy (without psychoses) were twice as numerous in the Armenian SSR (5.2%) as in most of the other union republics and in the USSR as a whole (2.4%).

1/2 017 UNCLASSIFIED PROCESSING DATE--16OCT70

TITLE--INVESTIGATION OF ACTIVE AND REPRESSED CHROMATIN IN BIRD LIVER AND ERYTHROCYTE NUCLEI -U-

AUTHOR-(03)-SHABALINE, A.T., MOROZOVA, T.M., SALGANIK, R.I.

COUNTRY OF INFO--USSR

SOURCE--MOLEKULYARNAYA BIOLOGIYA, 1970, VOL 4, NR 3, PP 411-413

DATE PUBLISHED--------70

SUBJECT AREAS--BIOLOGICAL AND MEDICAL SCIENCES

TOPIC TAGS--BIRD, LIVER, CHROMATIN, ERYTHROCYTE, RNA, CATALASE

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED
PROXY REEL/FRAME--1998/0165 STEP NO--UR/0463/70/004/003/0411/0413

CIRC ACCESSION NO--AP0120865
UNCLASSIFIED

UNCLASSIFIED PROCESSING DATE--16OCT70

2/2 017

CIRC ACCESSION NO--AP0120865

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. THE ACTIVE REPRESSED CHROMATIN RATIO IN THE NUCLEI OF ERTHROCYTES AND LIVER CELLS OF BIRDS (GALLUS DOMESTICUS) WAS STUDIED. THE AVERAGE CHROMATIN CONTENT WAS ESTABLISHED TO BE 0.1-0.3PERCENT IN ERYTHROCYTES AND 26.3PERCENT IN LIVER. THE HIGH RNA CONTENT AND THE CONSIDERABLE INTENSITY OF ITS SYNTHESIS IN LIVER CHROMATIN, AS COMPARED TO ERYTHROCYTE CHROMATIN, CONFIRM THE CONCEPT ABOUT CONSIDERABLE REPRESSEDNESS OF ERYTHROCYTE GENOME. THE INTENSITY OF RNA SYNTHESIS AND ITS HIGH CONTENT IN THE REPRESSED CHROMATIN OF ERYTHROCYTES IS MUCH LOWER THAN IN THAT OF LIVER CELLS; THE DIFFERENCES IN THE ACTIVE CHROMATIN ARE LESS DRASTIC. IT WAS SHOWN THAT IN LIVER CELL NUCLEI OF BIRDS OF A STRAIN WITH LOW ERYTHROCYTE CATALASA ACTIVITY, THE ACTIV CHROMATIN CONTENT IS LOWER THAN IN LIVER CELL NUCLEI OF BIRDS WITH HIGH ERYTHROCYTE CATALASA ACTIVITY. FACILITY: INSTITUTE OF CYTOLOGY AND GENETICS, SIBERIAN BRANCH OF ACADEMY OF SCIENCES, USSR, NOVOSIBIRSK.

UNCLASSIFIED

USSR UDC 621.791.754.053.001.5:621.3.014.3:539.4:669.14.018.44

SLAVIN, G. A., Candidate of Technical Sciences, MASLOVA, N. D., Engineer, and MOROZOVA, T. V., Engineer

"Study of the Relationship between Technological Strength and Crystallization during Pulsed Arc Welding of Heat-Resistant Alloys with Nonconsumable Electrode"

Moscow, Svarochnoye Proizvodstvo, No 6, 1971, pp 17-19

Abstract: Results are presented from an experimental study of the relationship of the welding mode to the nature of crystallization of the bath. The experiments were performed using specimens of heat-resistant austenitic steels and alloys, welded by pulsed arc welding with stepped movement of the electrode during pulse pauses. The relationship of the crystallization process to the structure and technological strength of the metal of the seam is demonstrated. A technological parameter--the radius of the tail portion of the initial crystallization front--is suggested, characterizing the relationship of the crystallization process to the structure and technological strength. The influence of welding conditions on the radius of this tail portion is studied. The technological possibilities for adjustment of the structure and properties of the seam during pulsed arc welding are demonstrated.

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MOROZOVA 21

AA0052656

UR 0482

Soviet Inventions Illustrated, Section III Mechanical and General, Derwent, 2-70

244817 TWO-SIDED HYDRAULIC DAMPER consists of two parts; 1 and 2 bolted together and mounted on base 3. It is filled with working medium under atmospheric pressure and connected by pipelines with additional chambers 4 and 5. The body contains a number of chambers with pistons 6 and 7 connected between themselves by crosspieces 8 and 9 which in turn are rigidly connected to rod 10. All the chambers are interconnected and each contains free piston which divides two media (air and fluid). The air medium communicates with the atmosphere through the non-return valve. Crosspieces 8 and 9 are connected to suitable guides 15 and 16. The pressure is transmitted to pistons 6 and 7 through the flange, thrust ball 17, rod 10 and crosspieces 8 and 9. 1.2.68. as 1214193/25-28. V.A.GOLUBEV et al. (9.10 69.) Bul.18/28.5.69. Class 47a. Int.Cl. F16f.

19

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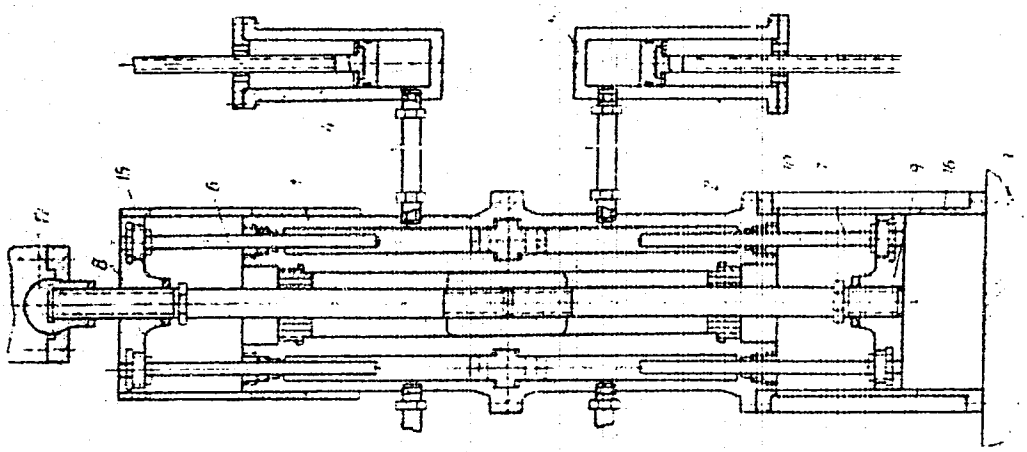
1/2

AA0052656

Morozova, Z.I.; Nugayev, R.A.;
Prokof'yeva, M.M.; Golubev, V. A.; Zhuravlev, A. M.



19821396

Miscellaneous

USSR UDC 669.7/.8.051

MOROZOVA, Z. V.

"Operating Experience of ONTI (Department of Scientific and Technical Information) of VAMI (All-Union Institute of Aluminum and Magnesium)"

V. sb. Nauchno-tekhn. inform. v tsvetn. metallurgii (Scientific and Technical Information in Nonferrous Metallurgy -- Collection of Works), Moscow, 1970, pp 50-52 (from RZh-Metallurgiya, No 3, Mar 71, Abstract No 3 G138 by S. KRIVONOSOVA)

Translation: The Department of Scientific and Technical Information in addition to information work within the institute performs information reference work, coordinates and supervises the activity of information services of enterprises of Glavalyuminiy (Main Administration of the Aluminum Industry), and publishes "Novosti Tekhnicheskoy Literatury" (News of Technical Literature) in 33 series. Since 1970 it has been published in the form of bibliographic cards. Every year the department prepares analytical surveys of the Soviet alumina, aluminum, and magnesium industry, as well as surveys on special-research questions in industry. Surveys summarizing the experience of the aluminum industry in France, the United States, and Italy are published.

1/1

1/2 016 UNCLASSIFIED PROCESSING DATE--30OCT70

TITLE--DETERMINATION OF SEROTONIN IN GASTRIC JUICE BY A FLUOROMETRIC METHOD -U-

AUTHOR-(03)-NOROZOVETSKIY, O.V., GROKHOVSKIY, L.P., OSTROUKHOV, V.D.

COUNTRY OF INFO--USSR

SOURCE--LAB. DELO 1970, (3), 152-4

DATE PUBLISHED--------70

SUBJECT AREAS--BIOLOGICAL AND MEDICAL SCIENCES

TOPIC TAGS--SEROTONIN, GASTROINTESTINAL SYSTEM, FLUOROMETER, DIGESTIVE SYSTEM

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED

PROXY REEL/FRAME--3001/1797 STEP NO--UR/9099/70/000/000/0152/0154

CIRC ACCESSION NO--AP0127211

UNCLASSIFIED

2/2 016 UNCLASSIFIED PROCESSING DATE--30OCT70

CIRC ACCESSION NO--AP0127211

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. SEROTONIN WAS EXTD. FROM GASTRIC JUICE WITH BUTANOL AND DETD. FLUORIMETRICALLY AFTER A 2ND EXTN. WITH HEPTANE WITH 0.1 N HCL IN THE PRESENCE OF 3N HCL.

FACILITY: LENINGRAD. GASTROENTEROL. LAB., LENINGRAD, USSR.

UNCLASSIFIED

USSR

UDC 535.373.2

YERMOLAYEV, V. L., KAZANSKAYA, N. A., MOSHINSKAYA, A. V., KHERUZE, Yu. I.

"Velocity Constants of Intramolecular Energy Transfer in Complex Ions of Rare-Earth Metals With Aromatic Acids"

Leningrad, Optika i Spektroskopiya, No 1, 1972, pp 82-85

Abstract: This article is subtitled "II, Effect of Introducing Insulating Methylene Groups." In the first part of the article, published in the same journal named above (vol 28, 1970, p 1150), the authors determined the velocity constants of the intramolecular energy transfer from the organic part to the rare-earth ion for a large number of complexes of Tb^{3+}, Eu^{3+}, Sm^{3+}, and Dy^{3+}, with the derivatives of benzoic acid, and found that the energy transfer was the result of exchange-resonance interactions. The present, second part of the paper investigates the effect of the introduction of one or two methylene groups (CH_2) between the aromatic group and the carboxyl group on the velocity constant of energy transfer in complex rare-earth ions with aromatic acids.

1/2

USSR

YERMOLAYEV, V. L. et al, Optika i Spektroskopiya, No 1, 1972, pp 82-85

A table of the measured velocity constants is given for various types of acids and rare-earth complexes, and it is found that an exchange-resonance mechanism is involved here as well.

2/2

USSR UDC 616.981.553-092.9-07:616.74-073

MIKHAYLOV, V. V. and MORRISON, V. V., Saratov Medical Institute

"Mechanism of Change in Polarization of Striated Muscle Fibers in Experimental Botulism and After Denervation"

Moscow, Byulleten' Eksperimental'noy Biologii i Meditsiny, No 1, 1973, pp 25-30

Abstract: Injection of rats and frogs with botulin produced general paralysis and a progressive decrease membrane potential and in potassium, sodium, and epinephrine with a simultaneous increase in norepinephrine. Local botulism had the same effects but not until 2 to 3 days after the onset of paralysis. In denervated rat muscle, membrane potential decreased and the potassium level dropped immediately and some time after the nerve was transected, but the decreases were less pronounced than in the same muscle poisoned with botulin. However, the sodium concentration did not change immediately after denervation and, in fact, it increased at a later period. Epinephrine decreased less in denervated muscle than in poisoned muscle and the epinephrine concentration remained normal. The differences between the effects of botulism and denervation on the polarization of muscle fibers, catecholamines and electrolytes in skeletal muscles are attributed to the fact that botulism inhibits mainly the activity of the tetanic neuromuscular apparatus but preserves that of the tonic

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APPROVED FOR RELEASE: 07/20/2001 CIA-RDP86-00513R002202120004-8"

USSR

MIKHAYLOV, V. V. and MORRISON, V. V., Byulleten' Eksperimental'noy Biologii i Meditsiny, No 1, 1973, pp 25-30

fibers, whereas denervation completely blocks the trophic influence of the phasic and tonic nerve fibers on the effectors.

USSR

MOSESYAN, K. M.

"Based and Strongly Based Graphs"

Dokl. AN ArmSSR [Works of Academy of Sciences, ArmSSR], 1972, 55, No 2, pp 83-86 (Translated from Referativnyy Zhurnal - Kibernetika, No 8, 1973, Abstract No 8 V333 by V. Titov)

Translation: A nonoriented graph, which can be oriented so that it becomes a base graph of a certain oriented graph (a partially ordered graph) is called a based (or strongly based) graph, while the corresponding orientation is called a basing (strongly basing) orientation. In the monograph of Ore (RZHMat, 1968, 11V265 K), the following problems are stated: describe the class of based (Chapter 8, Section 4, Problem 1*) and strongly based (Chapter 9, Section 1) graphs.

The subgraph of a graph is called saturated if it is based and with any basing orientation is converted to a bicoupled (for any points a and b there is a path from a to b) oriented graph. A graph contains a saturated subgraph when and only when it contains triangles or pairs of points connected by two lines.

USSR

MOSESYAN, K. M., Dokl. AN ArmSSR, 1972, 55, No 2, pp 83-86

Theorem. For a graph to be a based graph, it is necessary and sufficient that after extension (removal of lines and identification of points) of all maximally saturated subgraphs, a strongly based graph is produced.

Theorem. If a graph which is not a chain of length 2 has a path of length p with any strongly basing orientation, there are at least 2(p+1) different strongly basing orientations.

Result. For a strongly based graph L, which is not a line, there are at least $2\gamma(L)$ different strongly basing orientations, where $\gamma(L)$ is the chromatic number of graph L.

See also RZHMat, 1972, 10V356; 1973, 1V524, 5V468.

2/2

USSR UDC: 621.318.435.3

GORYACHEV, N. P., KOBLENTS, Ya. G., MORSHAKOV, V. A., RABKIN, L. I., EPSHTEYN, B. Sh., YAKOVENKO, D. A.

"A Noncontact, Magnetically Controlled Diode"

V sb. Novyye beskontaktn. elektron. ustroystva. Ch. 1 (New Noncontact Electronic Devices--collection of works. Part 1), Moscow, 1970, pp 26-31 (from RZh-Avtomatika, Telemekhanika i Vychislitel'naya Tekhnika, No 11, Nov 70, Abstract No 11A26)

Translation: The authors present the characteristics and describe some designs of ferrods whose principle of operation is analogous to that of a transformer with magnetization. A closed ferrod on a frame core made up of two L-shaped plates with a nonferromagnetic gap has low scatter of the output characteristics and high sensitivity. A ferrod designed on the basis of using a permanent magnet has inverse characteristics. A device with similar characteristics is a magnetically controlled diode designed around a standard ferrite bead with rectangular hysteresis loop located in the opening of a metallic magnetic circuit. Six illustrations, bibliography of four titles. Yu. Kh.

1/1

USSR

UDC 632.954

MORSHCHATSKIY, A. A., Genetic Experimental Station, All Union Experimental Corn Institute

"The Effect of Chlorocholine Chloride on the Infection of Wheat With Root Rot"

Moscow, Khimiya v Sel'skom Khozyaystve, Vol 10, No 7 (105), 1972, pp 40-41

Abstract: The effect of chlorocholine chloride (CCC) on the infection of wheat with root rot was studied in central steppe regions. CCC lowered the infection rate slightly when applied in the early stages of morphogenesis. Later applications resulted in even greater infection of the treated plants as compared to the controls. Special microbiological studies showed that the following fungi were the active pathogens: Fusarium, Helminthosporium sativum P.K.B., and Alternaria Tennis Nees. Evidently CCC is ineffective against these pathogens.

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UDC 632.4:633.1(47+57)

USSR

VETROV, YU. F., KORSHUNOVA, A. F., MORSHCHATSKIY, A. A., KHOKHRYAKOV, M. K., and CHULKINA, V. A., All-Union Institute of Plant Protection, Leningrad, Irkutsk Agricultural Institute, All-Union Scientific Research Institute of Corn, Dnepropetrovsk, Altai Mountain Agricultural Experimental Station

"Root Rot of Grain in the USSR"

Leningrad, Mikologiya i Fitopatologiya, Vol 5, No 2, 1971, pp 148-155

Abstract: This is a comprehensive literature review of Soviet work in the field of grain root rot. During the last ten years, knowledge about root rot in wheat and other cereals has gradually increased. More than 55 works on this subject were published or submitted for publication in the USSR. Root rot occurs in zones of insufficient or unstable humidity. In the Irkutsk region 12.2-42.3%, and in some cases as much as 61.3-67.3% of the spring wheat is annually infected with root rot, whereas in the Saratov region, the losses are 0.5-4.0% and, in extreme cases, 7.0-10.0%. Losses in other areas of the Soviet Union are enumerated, together with the appropriate references. Helminthosporium sativum and Fusarium avenaceum were isolated in Eastern

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USSR

VETROV, YU. F., et al., Mikologiya i Fitopatologiya, Vol 5, No 2, 1971, pp 148-155

Siberia, as well as in the central steppes of the Ukraine, on many wild and cultivated grains, and Ophiobolus graminis, which attacks many grain cereals and is found also on corn root. O. graminis can survive in the soil for more than 10 years.

2/2

MORSKOY, G. I.

UDC 551.509.323

USE OF NEPHANALYSIS WHEN COMPILING THE MEAN MONTHLY TEMPERATURE FORECAST

[Article by Candidate of Physical and Mathematical Sciences G. I. Morskoy, S. M. Sazhin, USSR Hydrometeorological Scientific Research Center, Moscow, Meteorologiya i Gidrologiya, Russian, No 12, 1971, submitted 15 June 1971, pp 85-89]

A method of forecasting the mean monthly temperature next to the ground is discussed in this article. It is based on the heat flux equation from which, after a series of assumptions, the regression equation is obtained. The values of the coefficients of this equation and also the estimates of the experimental forecasts are presented in the form of tables.

The definite progress made in references [1,3] with respect to using satellite data on the state of the cloud cover to compile a forecast of the average ten-day values of the temperature next to the ground permits hope of the possibility of using nephanalysis for monthly forecasting of this temperature. Here, an effort is made to generalize the above-indicated work. A scheme is proposed for using the statistical relation of the temperature fields, the temperature advection and cloudiness. The basis for this scheme is the heat flux equation

$$\frac{\partial T}{\partial t} = A_T + \frac{\gamma_a - \gamma}{g\rho}\tau + \frac{1}{c_p \rho}\varepsilon_1. \qquad (1)$$

Here A_T is the temperature advection, where

$$A_T = -\bar{v}\,\mathrm{grad}\,T = \frac{1}{r^2 l \sin\theta}\left(\frac{\partial T}{\partial\theta}\frac{\partial H}{\partial\lambda} - \frac{\partial T}{\partial\lambda}\frac{\partial H}{\partial\theta}\right),$$

$$\tau = \frac{dp}{dt},$$

H is the geopotential of the 500 millibar isobaric surface,
c_1 is the heat flux intensity,
θ is the colatitude,
λ is the longitude.

JPRS 55331
2 Mar 72

USSR

UDC 378.121

AGEYEV, D. V., GLEBOVICH, G. V., LEZIN, YU. S., MALANOV, V. V., MORUGIN, L. A., SMORGONSKIY, V. YA.

"Gor'kiy Polytechnic Institute"

Kiev, Izvestiya vysshikh uchebnykh zavedeniy--Radioelektronika, Vol XIV, No 8, 1971, pp 954-960

Abstract: A review of the scientific research work performed by the radio engineering department of Gor'kiy Polytechnic Institute is presented. Abstracts and bibliographic listings of many of the papers published by members of the radio engineering faculty are presented. The fields of study covered include improving the noise immunity of radio technical systems, the theory of pulse-duration modulation and pulse amplification of low-frequency electrical oscillations, improvement of the speed of pulse devices, automatic phase control and wave guide theory, and utilization of the research results in the training process. Specific lecture courses at the university in which the scientific research papers are used are listed.

1/1

USSR

UDC: 681.2.082/083.519.2

MORYAKIN, B. A.

"Algorithm for Filtration of Nonstationary Random Signals in Correlated Nonstationary Measurement Error"

Novosibirsk, Avtometriya, No 5, 1971, pp 13-19

Abstract: The mathematical expression of the type of signal considered in this paper is of the form

$$x(t) = \sum_{s=1}^{m} a_s \phi^s(t).$$

The author considers the problem of filtration for a more general model of this signal, from which the polynomial given above can be deduced as a particular case. The error of signal measurement is assumed to be correlated, and the signal and error are both nonstationary. An algorithm for the filtration of the signal is derived in recurrent form for convenience in performing the required computations, with the computation time of 10 ms per cycle, on a computer of the M-220 type.

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UNCLASSIFIED PROCESSING DATE--02OCT70

1/2 032

TITLE--MATERIAL FOR WELDING TITANIUM ALLOYS -U-

AUTHOR-(02)-MORYAKOV, V.F., KUDRYAVTSEV, I.M.

COUNTRY OF INFO--USSR

SOURCE--U.S.S.R. 261,150

REFERENCE--OTKRYTIYA, IZOBRET., PROM. OBRAZTSY, TOVARNYE ZNAKI 1970,

DATE PUBLISHED--06JAN70

SUBJECT AREAS--MATERIALS, MECH., IND., CIVIL AND MARINE ENGR

TOPIC TAGS--TITANIUM ALLOY, TITANIUM WELDING, METALLURGIC PATENT, METAL POWDER, CALCIUM FLUORIDE, WELDING FLUX

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED

PROXY REEL/FRAME--1990/1787 STEP NO--UR/0482/70/000/000/0000/0000

CIRC ACCESSION NO--AA0109748

UNCLASSIFIED

UNCLASSIFIED PROCESSING DATE--020CT70

2/2 032

CIRC ACCESSION NO--AA0109748

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. MATERIAL FOR WELDING TI ALLOYS WAS USED AS AN ADDITIVE DURING THE WELDING OF ARTICLES OF COMPLEX CONFIGURATION. THIS MATERIAL CONSISTED OF TI POWDER 95-7.5 AND CAF SUB2 2.5-5 WT. PERCENT. A RESIN EQUALS 80-100 WT. PERCENT OF THE DRY MIXT. WAS USED AS A BINDER.

UNCLASSIFIED

UNCLASSIFIED PROCESSING DATE--02OCT70

1/2 032

TITLE--MATERIAL FOR WELDING TITANIUM ALLOYS -U-

AUTHOR-(02)-MORYAKOV, V.F., KUDRYAVTSEV, I.M.

COUNTRY OF INFO--USSR

SOURCE--U.S.S.R. 261,150
REFERENCE--OTKRYTIYA, IZOBRET., PROM. OBRAZTSY, TOVARNYE ZNAKI 1970,
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SUBJECT AREAS--MATERIALS, MECH., IND., CIVIL AND MARINE ENGR

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